

a termination device connected to the transmission line to provide an impedance path to ground.

39. (Amended) The electronic system as set forth in claim 38, the termination device comprising:

a nMOSFET driver connected to the transmission line to provide an impedance path to ground;

wherein the pMOSFET driver and the nMOSFET driver in combination have an impedance substantially matched to the characteristic impedance of the transmission line if both the pMOSFET driver and the nMOSFET driver are switched ON, and wherein the nMOSFET driver has an impedance substantially matched to the characteristic impedance of the transmission line if the pMOSFET driver is switched OFF.

Remarks

Claims 22-34, 38, and 39 are presently active, claims 22, 31-33, 38, and 39 having been amended by this Amendment and claims 35-37 having been cancelled by this Amendment without prejudice.

In the office action dated 12 August 2002 ("Office Action"), the application was subjected to a restriction requirement based upon the species of Figs. 2 and 3. The Office Action did not specify which claims belonged to which specie.

Applicants believe that claims 22-30 and 35 as originally written were directed to the specie of Fig. 2; and that claims 31-33, 38, and 39 as originally written were directed to the specie of Fig. 3. Applicant believes that claim 34 is generic because both Figs. 2 and 3 have a termination device with matched impedance to the transmission line (a resistor at one end of the transmission line) and a pMOSFET. Claims 35-37 are cancelled without prejudice.

Accordingly, independent claim 22 is amended so that there is no longer a recitation that the second termination device is matched to the transmission line. Claim 22 is now generic. Both Figs. 2 and 3 have one matched termination device (the resistor at one end). And both Figs. 2 and 3 have another termination device. For Fig. 2, it is the resistor at the other end of the transmission line (which is matched). For Fig. 3, it is the combination of nMOSFETs. (This combination of nMOSFETs is not matched, because it is the combination of the nMOSFETs and the pMOSFET that is matched.) Claims 23-30 are dependent upon claim 22.

Independent claim 31 is amended so that it recites a first matched termination device, and a pMOSFET and a second termination device. Again, as discussed above, Figs. 2 and 3 have a first matched termination device (a resistor). And both Figs. 2 and 3 have a second termination device (the other resistor for Fig. 2 and the nMOSFETs for Fig. 3), as well as a pMOSFET. Claims 32 and 33 are dependent upon claim 31.

Independent claim 38 is amended to recite a pMOSFET and a termination device. Again, as discussed above, these elements are found in both Figs. 2 and 3. Claim 39 is now made dependent upon claim 38.

Accordingly, it is believed that all presently active independent claims are now generic, and that this Amendment obviates the need for an election of a specie.

Respectfully submitted,

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Version of Amended Claims with Changes

22. (Amended) An electronic system comprising:

- a ground having a ground voltage;
- a transmission line having a first end with a first characteristic impedance, a second end with a second characteristic impedance, and a quiescent voltage at ground voltage;
- a first termination device connected to the first end of the transmission line and connected to ground to provide an impedance substantially matched to the first characteristic impedance of the transmission line;
- a second termination device connected to the second end of the transmission line and connected to ground [to provide an impedance substantially matched the second characteristic impedance of the transmission line]; and
- a first agent connected to the transmission line, the first agent comprising a die having a first core voltage, the die comprising a pMOSFET comprising a source at the first core voltage and a drain connected to the transmission line.

31. (Amended) An electronic system comprising:

- a ground having a ground voltage;
- a transmission line having a first termination device connected to ground to reduce signal reflections such that the transmission line has a quiescent voltage at ground voltage;
- a die having a core voltage and comprising:

a pMOSFET driver to drive the transmission line, the pMOSFET driver having a source biased to the core voltage; and

[a nMOSFET driver coupled to the transmission line, the nMOSFET driver having a source at the ground voltage; and

a combinational logic circuit coupled to the nMOSFET driver.]

a second termination device coupled to the transmission line.

32. (Amended) The electronic system as set forth in claim 31, wherein the second termination device comprises:

a nMOSFET driver coupled to the transmission line, the nMOSFET driver having a source at the ground voltage; and

a combinational logic circuit coupled to the nMOSFET driver; and

wherein the combinational logic circuit is coupled to the nMOSFET driver so that the nMOSFET driver has a first ON resistance when the pMOSFET driver is ON and a second ON resistance when the pMOSFET driver is OFF, wherein the first and second ON resistances are not equal to each other.

33. (Amended) The electronic system as set forth in claim 31, wherein the second termination device comprises:

a nMOSFET driver coupled to the transmission line, the nMOSFET driver having a source at the ground voltage; and

a combinational logic circuit coupled to the nMOSFET driver; and

wherein the transmission line [having] has a characteristic impedance, wherein the pMOSFET driver and nMOSFET in combination have an impedance substantially matched to the characteristic impedance of the transmission line if both the pMOSFET driver and nMOSFET driver are switched ON, and wherein the nMOSFET has an impedance substantially matched to the characteristic impedance of the transmission line if the pMOSFET driver is switched OFF.

38. (Amended) An electronic system comprising:

 a ground having a ground voltage;

 a transmission line having a characteristic impedance and a quiescent voltage at ground voltage;

 a pMOSFET driver connected to the transmission line; and

 [a nMOSFET driver connected to the transmission line to provide an impedance path to ground; and

 a combinational logic circuit coupled to the nMOSFET driver so that the nMOSFET driver has a first ON resistance when the pMOSFET driver is ON and a second ON resistance when the pMOSFET driver is OFF, wherein the first and second ON resistances are not equal to each other.]

a termination device connected to the transmission line to provide an impedance path to ground.

39. (Amended) [An] The electronic system as set forth in claim 38, the termination device comprising:

[a ground and a ground voltage;
a transmission line having a characteristic impedance and a quiescent voltage at ground voltage;
a pMOSFET driver connected to the transmission line; and]
a nMOSFET driver connected to the transmission line to provide an impedance path to ground;
wherein the pMOSFET driver and the nMOSFET driver in combination have an impedance substantially matched to the characteristic impedance of the transmission line if both the pMOSFET driver and the nMOSFET driver are switched ON, and wherein the nMOSFET driver has an impedance substantially matched to the characteristic impedance of the transmission line if the pMOSFET driver is switched OFF.